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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,016	11/05/2003	Yuich Yamaguchi	037267-0149	5844
22428 7590 05/30/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER SALIARD, SHANNON S	
			ART UNIT 3628	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/701,016	<b>Applicant(s)</b> YAMAGUCHI, YUICH	
	<b>Examiner</b> Shannon S. Saliard	<b>Art Unit</b> 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____  |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :2/6/07, 8/20/04, 6/14/04, 11/5/03.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 25 and 32-42** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

**Claims 25, 32, and 33**, as currently recited, appear to be directed to nothing more than a series of steps including detecting and calculating information such as survey-related information without any tangible result and are therefore deemed to be non-statutory.

A claimed invention is deemed to be statutory, if the claimed invention produces a useful, concrete, and tangible result. An invention, which is eligible or patenting under 35 U.S.C. 101, is in the "useful arts" when it is a machine, manufacture, process or composition of matter, which produces a concrete, tangible, and useful result. The fundamental test for patent eligibility is thus to determine whether the claimed invention produces a "use, concrete and tangible result". See *AT&T v. Excel Communications Inc.*, 172 F.3d at 1358, 50 USPQ2d at 1452 and *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d at 1373, 47 USPQ2d at 1601 (Fed. Cir. 1998). The test for practical application as applied by the examiner involves the determination of the following factors:

- (a) "Useful" – The Supreme Court in *Diamond v. Diehr* requires that the examiner look at the claimed invention as a whole and compare any asserted utility with

the claimed invention to determine whether the asserted utility is accomplished. Applying utility case law the examiner will note that:

- i. the utility need not be expressly recited in the claims, rather it may be inferred.
- ii. if the utility is not asserted in the written description, then it must be well established.

(b) "Tangible" – Applying *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754

(Fed. Cir. 1994), the examiner will determine whether there is simply a mathematical construct claimed, such as a disembodied data structure and method of making it. If so, the claim involves no more than a manipulation of an abstract idea and therefore, is nonstatutory under 35 U.S.C. 101. In *Warmerdam* the abstract idea of a data structure became capable of producing a useful result when it was fixed in a tangible medium, which enabled its functionality to be realized.

(c) "Concrete" – Another consideration is whether the invention produces a "concrete" result. Usually, this question arises when a result cannot be assured. An appropriate rejection under 35 U.S.C. 101 should be accompanied by a lack of enablement rejection, because the invention cannot operate as intended without undue experimentation.

In the present case, the claimed invention detects a current position of a handy terminal to calculate an arrival time of a taxi (i.e., useful and concrete). While the invention may be concrete and/ or useful, there does not appear to be any tangible result.

**Claims 34-42** do not recite that the computer program product comprises a computer readable medium having computer readable program instructions or code embodied thereon and configured to control a computer to perform specific functional steps. The lack of recitation of any specific computer readable medium results in a claim that recites functionally descriptive material (defined as "data structures and computer programs with impart functionality when encoded on a computer readable medium" by the Computer-Implemented Invention Guidelines) without any interrelationships between the data structure and other aspects of the invention that would permit the data structure's functionality to be realized.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-3, 6, 7, 9, 12-16, 18, 19, 21-26, 28, 29, 33-35, 37, 38, and 42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayed [US 6,756,913] in view of Lee [US 2004/0177109].

As per **claims 1, 25, and 34**, Ayed discloses a system for hiring a taxi, comprising a handy terminal, a receiver equipped in a taxi, and a calculator, said handy terminal having functions of detecting a current position of itself through GPS (Global Positioning System) [col 4, line 62 – col 5, lines 1], and transmitting a request to said receiver of a taxi located in the vicinity of said handy terminal that said taxi comes to said handy terminal [col 5, lines 1-30]; and a calculator [col 3, lines 45-51]. Ayed does not explicitly disclose said calculator calculating an arrival time at which said taxi is expected to arrive at said handy terminal, based on said current position of said handy terminal and a current position of said taxi. However, Lee discloses calculating an optimal route to the location of the client based on the current state of the taxi [0030]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Lee so that a user can make a determination if he/ she would like to wait.

As per **claim 2**, Ayed further discloses wherein said calculator is equipped in said handy terminal [col 3, lines 45-51].

As per **claims 3, 16, 26, and 35**, Ayed does not disclose further comprising a taxi-data server storing therein data relating to said taxi, said handy terminal having a function of displaying said taxi data transmitted from said taxi-data server. However, Lee discloses a server storing taxi information for display on the mobile device of a customer [0031]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method

disclosed by Lee so that the customer does not take the wrong taxi causing the driver lose wages.

As per **claims 6, 18, 28, and 37**, Ayed does not explicitly disclose wherein said steps further include downloading said taxi data from said taxi-data server to said handy terminal through a packet network, a packet network gateway and Internet. However, Lee discloses that the mobile terminal communicates through a wireless Internet network [0015]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Alee so that the system can be used anywhere in the world.

As per **claims 7, 19, 29, and 38**, Ayed further discloses wherein said handy terminal downloads said taxi data from said taxi-data server thereto through a cellular phone network [col 6, lines 15-17; Fig. 1]. Ayed does not explicitly disclose an access point of an Internet service provider (ISP) and Internet. However, Lee discloses that the mobile terminal communicates through a wireless Internet network [0015]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Alee so that the system can be used anywhere in the world.

As per **claims 9 and 21**, Ayed does not disclose wherein said handy terminal receives, after transmission of said request to said receiver, at least one of a current position of said handy terminal and a current position of said taxi at real-time. However, Lee discloses a navigation system located within the taxi that transmits the taxi state to the client in real-time with regard to traffic and location information [0036].



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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Lee so for good customer service and so that a customer does not leave while the taxi is in-route.

As per **claims 12, 23, 33, and 42**, Ayed does not disclose further including a memory storing therein data of a route which a taxi a user of said handy terminal hired ran. However, the Examiner takes Official Notice that it is old and well known in the GPS and/or navigation art to store previous routes that have been ran. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include further including a memory storing therein data of a route which a taxi a user of said handy terminal hired ran so that the taxi company can keep of log of their drivers utilization.

As per **claims 13 and 24**, Ayed further discloses wherein said handy terminal is comprised of a cellular phone [Fig. 1].

As per **claim 14**, Ayed does not disclose further comprising a map-data server storing therein data about a map of an area covering from a current position of said taxi to a current position of said handy terminal, and data about speed restriction of roads in said area, said handy terminal receiving said data from said map-data server. However, Lee discloses a car navigation system with a map in which in which the client location information is displayed along with real-time traffic information and the client can client can learn about his taxi state by watching and hearing traffic [0029; 0036]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to

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modify the invention of Ayed to include the method disclosed by Lee to add to customer service, as suggested by Lee [0036].

As per **claim 15**, Ayed discloses a handy terminal used in a system for hiring a taxi, said system being comprised of said handy terminal and a receiver equipped in a taxi, said handy terminal having functions of detecting a current position of itself through GPS (Global Positioning System) [col 4, line 62 – col 5, lines 1], and transmitting a request to said receiver equipped in a taxi located in the vicinity of said handy terminal that said taxi comes to said handy terminal [col 5, lines 1-30], said handy terminal including a calculator [col 3, lines 45-50]. Ayed does not explicitly disclose calculating an arrival time at which said taxi is expected to arrive at said handy terminal, based on said current position of said handy terminal and a current position of said taxi. However, Lee discloses calculating an optimal route to the location of the client based on the current state of the taxi [0030]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Lee so that a user can make a determination if he/ she would like to wait.

5. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayed [US 6,756,913] in view of Lee [US 2004/0177109] as applied to claim 1 above, and further in view of Takanashi et al [US 2003/0065556].

As per **claim 4**, Ayed does not disclose wherein said taxi data includes at least one of a current position of said taxi, a fare of said taxi, an age of a driver of said taxi, years for which a driver of said taxi continues service, comments of said driver, and comments of a user who previously took said taxi. However, Takanashi et al discloses wherein said taxi data includes at least one of a current position of said taxi, a fare of said taxi, an age of a driver of said taxi, years for which a driver of said taxi continues service, comments of said driver, and comments of a user who previously took said taxi [0050]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Takanashi et al so that the user can choose a driver that meets his/ her standards (i.e., safety).

6. **Claims 5, 17, 27, and 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayed [US 6,756,913] in view of Lee [US 2004/0177109] as applied to claim 5 above, and further in view of Morimoto [US 2005/00227620].

As per **claims 5, 17, 27, and 36**, Ayed does not disclose wherein said handy terminal displays a plurality of said taxi data such that a user of said handy terminal can select a taxi among displayed taxis, based on said plurality of said taxi data. However, Morimoto discloses the user transmits a message for selecting a specific taxi company [0037]. Morimoto further discloses that the taxi user can perform a request specifying a specific driver [040]. Therefore, it would have been obvious to one of ordinary skill in the

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art at the time of the invention to modify the invention of Ayed to include wherein said handy terminal displays a plurality of said taxi data such that a user of said handy terminal can select a taxi among displayed taxis, based on said plurality of said taxi data so that the user can choose a driver that meets his/ her standards (i.e., safety).

7. **Claims 8, 20, 30, and 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayed [US 6,756,913] in view of Lee [US 2004/0177109] as applied to claim 3 above, and further in view of Morimoto [US 2005/00227620] and Takanashi et al [2003/0065556].

As per **claims 8, 20, 30, and 39**, Ayed does not disclose further comprising a memory storing data of taxis which users used to hire, and wherein said calculator receives a current position of a taxi which a user of the handy terminal selects among said taxis, from said taxi-data server, and calculates an arrival time at which said selected taxi is expected to arrive at said handy terminal, based on a current position of said handy terminal and said current position of said taxi. However, Lee discloses calculating an optimal route to the location of the client based on the current state of the taxi [0030]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Lee so that a user can make a determination if he/ she would like to wait.

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Furthermore, Morimoto discloses the user transmits a message for selecting a specific taxi company [0037]. Morimoto further discloses that the taxi user can perform a request specifying a specific driver [040]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include wherein said handy terminal displays a plurality of said taxi data such that a user of said handy terminal can select a taxi among displayed taxis, based on said plurality of said taxi data so that the user can choose a driver that meets his/ her standards (i.e., safety). Further, Takanashi et al discloses storing the current state of the hired taxis in the memory [0043-0045]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Takanashi et al so that the server does not allocate an occupied taxi to a waiting patron.

8. **Claims 10, 11, 22, 31, 32, 40, and 41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayed [US 6,756,913] in view of Lee [US 2004/0177109] and Takanashi et al [2003/0065556] as applied to claim 4 above, and further in view of Morimoto [US 2005/00227620].

As per **claims 10, 31 and 40**, Ayed does not disclose wherein said taxi-data server receives comments of a user of said handy terminal about a taxi which said user hired, through Internet. However, Morimoto discloses transmitting a questionnaire through wireless access point on the phone and transmits the information to the taxi company server [0057]. Therefore, it would have been obvious to one of ordinary skill

in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Morimoto so that the company can analyze responses [0057].

As per **claims 11, 22, 32, and 41**, Ayed does not disclose wherein said handy terminal includes a transmitter transmitting data of a destination to said receiver when said handy terminal transmits said request to said receiver. However, Takanashi et al discloses that the destination input by the requestor is transmitted to a dispatch center [0055]. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Ayed to include the method disclosed by Takanashi et al for optimal deployment of taxis.

### ***Conclusion***

Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of

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the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shannon S. Saliard whose telephone number is 571-272-5587. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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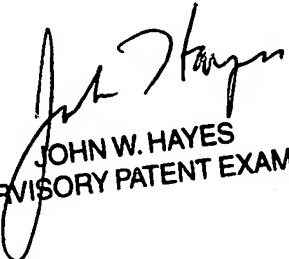
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Shannon S Saliard  
Examiner  
Art Unit 3628

SSS

  
JOHN W. HAYES  
SUPERVISORY PATENT EXAMINER